Mapper

```
class MAPPER
 method INITIALIZE()
       Create empty temp list
       Set old user id to some non-positive integer (say 0)
 method MAP(line I)
       info <- split the line
       user id <- info[0]
       movie id <- info[1]
       rating <- info[2]
       if rating >= 4.0 do
            if old user id != user id do
                  sort temp list
                  for all movie i in temp list do
                        for all movie j > movie i in temp list do
                             EMIT(movie_i, movie_j, 1)
                  temp list <- []
                  old user id <- user id
            else
                  temp_list.append(movie_id)
```

Reducer

```
class REDUCER
method INITIALIZE()
    Read movies.csv file and store the movie names into a global dictionary
    where movie_id is key and movie_name is the value
    set threshold to any value (say 1000)
method REDUCE(movie_i, movie_j, counts [c1, c2, ......])
    sum <- 0
    for all c in counts do
        sum <- sum + c
    if sum > threshold do
        EMIT(movie_i, movie_j, sum)
```